STUDY TITLE: Update Summary of Knowledge: Selected Areas of the Pacific Coast

REPORT TITLE: Updated Summary of Knowledge for Pacific Coast

CONTRACT NUMBER: M08PD20170

SPONSORING OCS REGION: Alternative Energy Program, Pacific OCS Regional Office APPLICABLE PLANNING AREAS: (1) Grays Harbor, WA to San Francisco Bay; (2) Santa

Barbara County to U.S/Mexican border

FISCAL YEARS OF PROJECT FUNDING: 2009-2010 COMPLETION DATE OF REPORT: July 2, 2010

COST BY FISCAL YEAR: FY 2009: \$355, 171; FY2010: \$355,170

CUMULATIVE COST: \$710,341 PROJECT MANAGER: Bruce Kaplan AFFILIATION: Mangi Environmental Group

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KEYWORDS: Literature Search, synthesis, California, Northern California, Southern California, Washington, Oregon, oceanography, impacts

BACKGROUND: The BOEMRE Pacific OCS Region is a significant source of oil and gas for the nation. To perform periodic and project reviews of oil and gas production activities on existing leases in California, the Region has relied on environmental documentation prepared for previous lease sales, platform and pipeline construction, undeveloped leases, and other documents and reports. The basis for much of this documentation comes from a summary of knowledge prepared for the BOEMRE's predecessor agency MMS in 1993, covering available information for key environmental topics through 1992. The BOEMRE needs to update this summary of knowledge to include information for subjects where significant new information has become available since 1992.

The Energy Policy Act of 2005 amended Section 8 of the OCS Lands Act (OCSLA) (43 USC 1337) to give the Secretary of the Interior authority to issue a lease, easement, or right-of-way on the OCS for activities that are not otherwise authorized by the OCSLA, including activities that produce or support production, transportation, or transmission of energy from sources other than oil and gas. This includes wind, wave, and current technologies. The BOEMRE Pacific Region prepared a previous summary of knowledge for areas beyond existing leases in Southern California in 1977. The BOEMRE needs to update its summary of knowledge for areas of the OCS suitable for the development of alternative energy. This would include significant new information for the Pacific Coast from Grays Harbor, WA, to San Francisco Bay, CA.

OBJECTIVES: The objectives of this study are: (1) to collect, review and compile information after 1994 for the coastal and marine environment of the Southern Study Area; (2) to collect, review and compile information after 1977 for the coastal and marine environment of the Northern Study Area; (3) provide BOEMRE with a system that allows easy electronic access and retrieval of all environmental information collected during the study; and (4) to identify relevant data gaps in the current state of knowledge of the study area.

Specific objectives were to develop: (1) a computer-searchable reference database (annotated bibliography) incorporating existing literature, relevant data, and ongoing research pertaining to the geological, physical, chemical, and biological processes of the study areas, as well as to social and economic data and literature and (2) a synthesis report that characterizes the study areas and the scope and depth of information available in the different disciplines. The information "should focus on specific topics appropriate for environmental reviews or assessments of the existing or potential activities that may occur on the OCS within the purview of BOEMRE."

DESCRIPTION: The study areas were defined geographically as: (1) Northern Study Area: extending south from Grays Harbor WA to the San Francisco Bay, and roughly 50 miles seaward; and (2) Southern Study Area: extending south from the northern border of Santa Barbara County to the Mexican border.

A comprehensive literature search was completed, organized by oceanographic discipline, to identify relevant existing information on resources in the study area and the potential impacts of offshore alternative energy development. The first step of the search involved online commercial and government databases. Subsequently, a broad Internet search was conducted, using search terms similar to the online database searches. The literature search was refined to focus on literature for the resources and impacts most relevant to the development of alternative energy in the Northern Study Area, and oil and gas development in the Southern Study Area. In addition, academic and research institutions were contacted as appropriate to gain access to information not available through our electronic searches, or to pursue specific lines of inquiry.

All references were compiled in an electronic Annotated Bibliography using EndNote reference software. In addition, complete PDF files were attached to the record for available files for which permissions were obtained, either directly by the authors or from existing permissions through DOI Library.

A summary and analysis of the literature was then compiled into a Synthesis Report, which included a summary of data gaps for each oceanographic discipline.

SIGNIFICANT CONCLUSIONS: Important data gaps remain across the full range of oceanographic resources in the study areas.

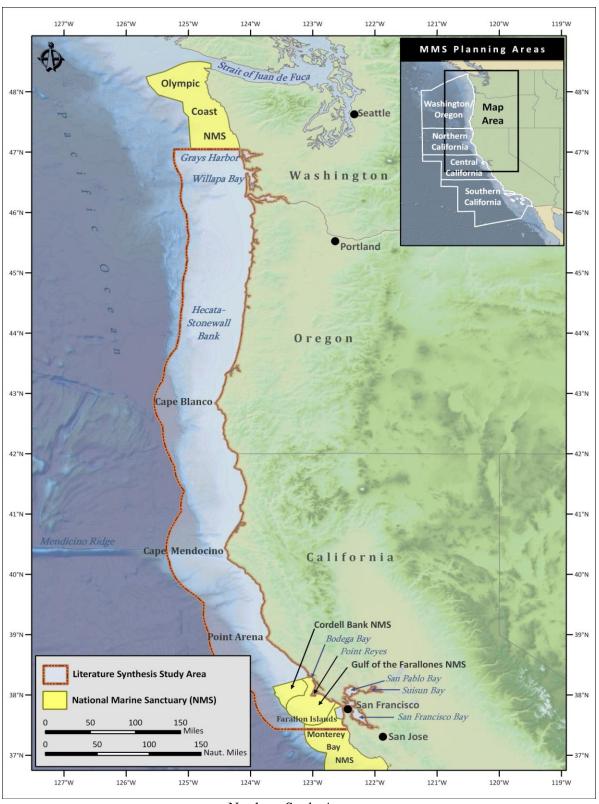
STUDY RESULTS: Over 3000 annotated references are included in the database.

STUDY PRODUCTS: Kaplan, B., CJ Beegle-Krause, D. French McCay, A. Copping, S. Geerlofs, eds. 2010. Updated Summary of Knowledge: Selected Areas of the Pacific Coast. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, Pacific OCS Region, Camarillo, CA. OCS Study BOEMRE 2010-014.

Mangi Environmental Group 2010, Annotated Bibliography for Selected Areas of the Pacific Coast, EndNote software database, U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, Pacific OCS Region, Camarillo, CA. OCS Study BOEMRE 2010-014.

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Northern Study Area

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Southern Study Area